

## Claims

What is claimed is:

- 1        1. A method, comprising:  
2            coupling a plurality of receivers to a first frequency reference to  
3            communicate with a first station over a corresponding plurality of signal paths;  
4            and  
5            selectively coupling one of the plurality of receivers to a second frequency  
6            reference to communicate with a second station over a signal path not included  
7            in the plurality of signal paths.
- 1        2. The method of claim 1, further comprising:  
2            determining whether a quality of service provided by the second station is  
3            greater than a quality of service provided by the first station.
- 1        3. The method of claim 1, wherein the quality of service provided by the first  
2            station includes at least one of a network type, a network capability, a  
3            network activity level, a signal strength, a bandwidth, a signal-to-noise ratio,  
4            a signal-to-interference ratio, a multipath condition, a service provider, a  
5            monetary cost, user-preferred information, and a user-preferred service.
- 1        4. The method of claim 1, further comprising:  
2            adjusting the first frequency reference to provide a reference frequency  
3            substantially equal to a reference frequency provided by the second frequency  
4            reference.
- 1        5. The method of claim 1, further comprising:  
2            handing off communications between the first station and the plurality of  
3            receivers from the first station to the second station after determining that a

4       quality of service provided by the second station is greater than a quality of  
5       service provided by the first station.

1       6. The method of claim 1, further comprising:  
2       selectively coupling another one of the plurality of receivers to a third  
3       frequency reference to communicate with a third station over another signal path  
4       not included in the plurality of signal paths.

1       7. The method of claim 1, further comprising:  
2       adjusting the second frequency reference to provide a new reference  
3       frequency; and  
4       communicating with a new station using a new signal path not included in  
5       the plurality of signal paths.

1       8. An article comprising a machine-accessible medium having associated data,  
2       wherein the data, when accessed, results in a machine performing:  
3       coupling a plurality of receivers to a first frequency reference to  
4       communicate with a first station over a corresponding plurality of signal paths;  
5       and  
6       selectively coupling one of the plurality of receivers to a second frequency  
7       reference to communicate with a second station over a signal path not included  
8       in the plurality of signal paths.

1       9. The article of claim 8, wherein the plurality of receivers are configured to  
2       operate as a multiple-input, multiple-output system, and wherein selectively  
3       coupling one of the plurality of receivers to the second frequency reference  
4       further comprises:  
5       decoupling the one of the plurality of receivers from operating as a part of  
6       the multiple-input, multiple-output system; and

7           coupling the one of the plurality of receivers to operate as a receiver  
8           independent from the multiple-input, multiple-output system.

1           10. The article of claim 8, wherein the data, when accessed, results in the  
2           machine performing:

3                 selecting a second reference frequency to be provided by the second  
4                 frequency reference based on one of an arbitrary scan process, a list of  
5                 frequencies, and a location of the plurality of receivers.

1           11. The article of claim 8, wherein a first reference frequency to be provided by  
2           the first frequency reference is selected in accordance with a channel designated  
3           by one of an Institute of Electrical and Electronics Engineers (IEEE) 802.11  
4           standard or an IEEE 802.16 standard.

1           12. The article of claim 8, wherein a selected one of the plurality of receivers is  
2           included in a transceiver.

1           13. An apparatus, comprising:  
2                 a plurality of receivers to couple to a first frequency reference and to  
3                 communicate with a first station using a plurality of signal paths, wherein at  
4                 least one of the plurality of receivers can be selectively coupled to the first  
5                 frequency reference or to a second frequency reference to communicate with a  
6                 second station using a signal path not included in the plurality of signal paths.

1           14. The apparatus of claim 13, wherein the plurality of signal paths comprise a  
2           portion of a multiple-input, multiple-output communication system.

1           15. The apparatus of claim 13, wherein the first frequency reference comprises a  
2           first frequency synthesizer, and wherein the second frequency reference  
3           comprises a second frequency synthesizer.

1       16. The apparatus of claim 13, further comprising:  
2             a determination module to determine whether a quality of service provided  
3       by the second station is greater than a quality of service provided by the first  
4       station.

1       17. The apparatus of claim 13, wherein the quality of service provided by the  
2       first station includes at least one of a network type, a network capability, a  
3       network activity level, a signal strength, a bandwidth, a signal-to-noise ratio, a  
4       signal-to-interference ratio, a multipath condition, a service provider, a monetary  
5       cost, user-preferred information, and a user-preferred service.

1       18. The apparatus of claim 13, further comprising:  
2             a third frequency reference, wherein at least another one of the plurality of  
3       receivers can be selectively coupled to the first frequency reference or the third  
4       frequency reference to communicate with a third station using another signal  
5       path not included in the plurality of signal paths.

1       19. The apparatus of claim 13, wherein the plurality of signal paths comprise a  
2       portion of a multiple-input, multiple-output communication system, and  
3       wherein the signal path is a search signal path, further comprising:  
4             a third frequency reference, wherein at least another one of the plurality of  
5       receivers can be selectively coupled to the first frequency reference or the third  
6       frequency reference to communicate with a third station using a second search  
7       signal path not included in the plurality of signal paths.

1       20. A system, comprising:  
2             a plurality of receivers to couple to a first frequency reference and to  
3       communicate with a first station using a plurality of signal paths, wherein at  
4       least one of the plurality of receivers can be selectively coupled to the first

5 frequency reference or to a second frequency reference to communicate with a  
6 second station using a signal path not included in the plurality of signal paths;  
7 a processor to couple to the plurality of receivers; and  
8 a display to couple to the processor.

1 21. The system of claim 20, further comprising:  
2 a transceiver including a selected one of the plurality of receivers.

1 22. The system of claim 20, further comprising:  
2 a third frequency reference, wherein at least another one of the plurality of  
3 receivers can be selectively coupled to the first frequency reference or to the  
4 third frequency reference to communicate with a third station using another  
5 signal path not included in the plurality of signal paths.

1 23. The system of claim 20, further comprising:  
2 a one-to-one corresponding plurality of antennas to couple to the plurality of  
3 receivers.